ENGINEERING ALUMNI NEWS

UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE AND ENGINEERING
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DR. ROLAND McLAUGHLIN

ROLAND R. McLAUGHLIN

All Engineers joined the University community in mourning the death of Dr. Roland R. McLaughlin on September 10, 1970. "Roly" McLaughlin was Dean of the Faculty of Applied Science and Engineering from 1954 until 1966 and during this period displayed an enviable record of administrative ability, technical competence and personal zeal in support of staff and students. On his death, we lost a respected guide and a good friend. While we Engineers remember "Roly" principally for his influence on our Faculty, we will share our loss with the whole sphere of the University community over which his many interests were directed.

His modest appearance and quiet demeanour hid tenacity of purpose and great persuasiveness. Before stating a case, he marshalled his arguments carefully. An encounter with the Ford Foundation was typical. It took place in the fall of 1958 when an official of the Foundation paid a brief and unheralded visit to the Faculty. After listening to McLaughlin for a while and touring some of the laboratories, the visitor suddenly put the question: "If you were offered two million dollars, how would you spend them?"

McLaughlin recalled later that he had plenty of ideas on the subject but asked instead for time to think about it. Several weeks later, he submitted a detailed proposal on behalf of the Faculty that was accepted, just as it stood. The result was a grant of $2.35 millions that included an additional amount towards the cost of a new building for the Department of Metallurgy and Materials Science. The money helped to finance the biggest expansion in the history of the Faculty and, under McLaughlin's leadership, to make its graduate school one of the finest graduate engineering schools in North America.

"Roly" McLaughlin was born in Toronto on March 16, 1901. He went to Rosedale Public School and later matriculated from St. Andrew's College. He joined the Chemical Engineering course at U of T in 1918 and graduated four years later with honours. After gaining his M.A.Sc. in 1923, he joined his family's business, the Canada Dry Company, for a while. His first task was to establish a ginger ale factory in New York. The following year, he returned to Varsity to gain first his M.A. and then his Ph.D.

After a brief spell in London, England, in the famous Lister Institute of Preventive Medicine as a Grocers' Company Research Fellow, he joined the Department of Chemical Engineering in Toronto as an assistant professor in 1931. He became associate professor in 1939 and professor in 1943. That same year, he was elected president of the Chemical Institute of Canada.

Dr. McLaughlin became head of the Department in 1946 and in 1954 was appointed Dean of the Faculty. When, in 1966, he relinquished the deanship, he became senior adviser to the President on future planning, a post that absorbed his energies until his death.

His career in chemical engineering had been devoted chiefly to organic chemistry and he showed a lively interest in dyes and himself developed a new method of *fixing* colours in synthetic fabrics and in paper. Gradually, he devoted more of his time to the wider problem of training engineers and scientists to meet the challenges of a rapidly changing era of new technology. He was much concerned over the need to preserve the best characteristics of the university at a time when he felt they were threatened by the pressures of unprecedented expansion, which raised new problems and magnified some that existed already.

With increasing dependence on state aid, he saw academic independence threatened. He also saw the risk that, in face of the pressure of numbers, the research role of universities might be sacrificed in the desire to expand the teaching function. "The greatest danger that lies ahead," he once warned, "is that the pressure of numbers could lead the public to think only of the teaching function, and to think of universities only as extensions of our high schools, excellent though they be." A move in this direction, he stressed, would lead inevitably to the extinction of universities in all but name and the certain decline of the country that permitted this to happen.

Another tendency that concerned Dean McLaughlin was that of regarding universities as places to train young people for specific jobs, a path that he warned could lead only to oblivion. He was also perturbed by so-called "efficiency experts" who urged year-round operation, in the effort to achieve "better plant utilization." Whatever the theoretical pros and cons might be of such a policy, he maintained, the thing that mattered most was the effect that it would have on existing and potential staff ."To put it bluntly," he once told a group of professional engineers, "there is an international market for good professors." Off-the-cuff, over simplified "solutions" for Canadian universities, he warned, would have to take account of such hard facts of life.

Roland McLaughlin's wife, the former Margery McLay, whom he married in 1925, came herself of stout academic stock and shared his interests in education. Their daughter Julia Eleanor, a U of T (U.C.) B.A., went on to secure her diploma in Physical and Occupational Therapy and aroused in her father an interest in the plight of physically disabled people that led him to organize courses in design drawing in in the Engineering school for "POTS" that led them later to present him with one of his proudest possessions, an honorary diploma in Physical and Occupational Therapy.

ENGINEERS TO CONSECRATE MED CENTRE

You will have noticed in the press recently, the official opening of the new Medical Sciences Building at the University of Toronto. You may not know however, that the most outstanding quality of this new complex is *not* the sophistication of its physical plant, but rather the hallowed ground upon which it rests. This new pride of the Medical Profession is assured of success for it rests on ground made sacred by the presence of the late little Red Schoolhouse.

With these thoughts in mind, Bill Bartlett, 4T5, has arranged for a consecration ceremony for the new building at which time it will receive an Engineering benediction. On Wednesday, December 9, at 4:00 p.m., a plaque will be attached to the Medical Sciences Building. It will read:

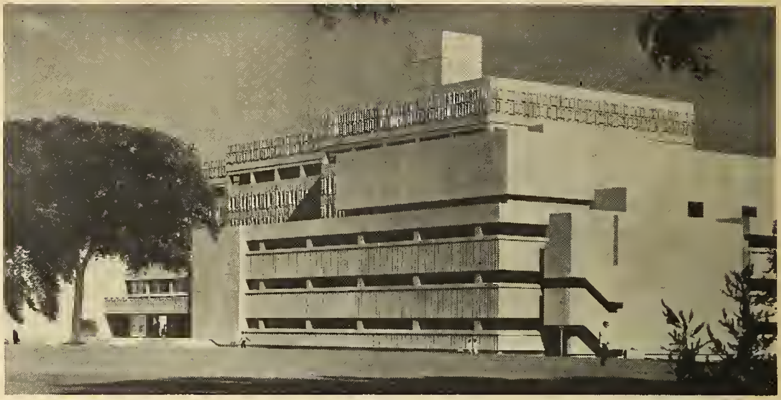
1877 — 1966

SCHOOL OF PRACTICAL SCIENCE

"The brick structure which stood on this site was affectionately known as the "Red Schoolhouse" by some 15,000 Engineers and Architects who were taught here.

"From this site graduates went to build their University, their Country and their Profession."

The ceremony will be followed by a reception in the Music room at Hart House from 5:00 to 6:00 p.m. At the reception a slide presentation will show interesting views of the old Schoolhouse as well as contrasting new developments at The Faculty. These will feature a view graph display of "Miss Purity's" triumphant performance in the clean car rally. A bar and snacks will be provided.



NO COMPARISON

PLEASE INDICATE YOUR INTENTION TO ATTEND BY FILLING OUT THE FORM BELOW AND SENDING TO:
ALUMNI HOUSE, 47 WILLCOCKS STREET, TORONTO 5, ONTARIO

I plan to attend on Wednesday, December 9, at the Medical Sciences Building.

Name .... Year ....

☐ Ceremony 4:00 p.m.

☐ Reception 5:00-6:00 p.m.

FINANCIAL STATEMENTS

ENGINEERING ALUMNI ASSOCIATION OF THE UNIVERSITY OF TORONTO

BALANCE SHEET AS AT JUNE 30, 1970

ASSETS

	1970	1969
Cash and Marketable Investments	$23,432.38	$23,821.77
Student Loan Fund (See Note 1)	6,861.68	12,453.16
	$30,294.06	$36,274.93

LIABILITIES AND CAPITAL

	1970	1969
Accounts Payable	$ 4,740.99	$ 6,332.63
Capital Account	29,942.30	30,893.56
Less Adjustment for Loan Fund Depletion (See Note 2)	1,556.35	717.61
Less expenditure in Excess of Revenue	2,832.88	233.65
	$30,294.06	$36,274.93

NOTES:

(1) Inactive Loan fund depleted by $4,590.99 — 2T7 withdrawal to provide books for new faculty library.
(2) Inactive Loan fund depleted by $1,556.35 — used for scholarship and bursary awards.

STATEMENT OF REVENUE AND EXPENDITURE

for the year ended June 30, 1970

OPERATIONS FUND	1970	1969
Revenue — annual appeal and interest	$13,353.65	$10,553.31
Expenditures — of which $7,000 is for publishing Engineering Alumni News	16,186.53	10,786.96
Excess of operating Expenditures over Revenues	$ 2,832.88	$ 233.65
ENGINEERING EDUCATION COMMITTEE FUND		
Revenue		
Annual appeal and donation	$10,300.00	$10,000.00
Interest on Education Fund Investment	1,143.65	1,282.39
	$11,443.65	$11,282.39
Expenditures		
Bursaries and Scholarships	13,000.00	12,000.00
Excess of Educational Expenditures over revenue (See Note 2)	$ 1,556.35	$ 717.61

The above are extracts from the Audited statements of the Association. Copies of the audited statements are available on request from the Treasurer, Roy F. Gross, Canadian Nuclear Association, Suite 1002, 11 Adelaide Street West, Toronto 105, Ontario, or from the Auditors, Grier, Dyer & Co., 120 Bloor Street East, Toronto, Ontario.

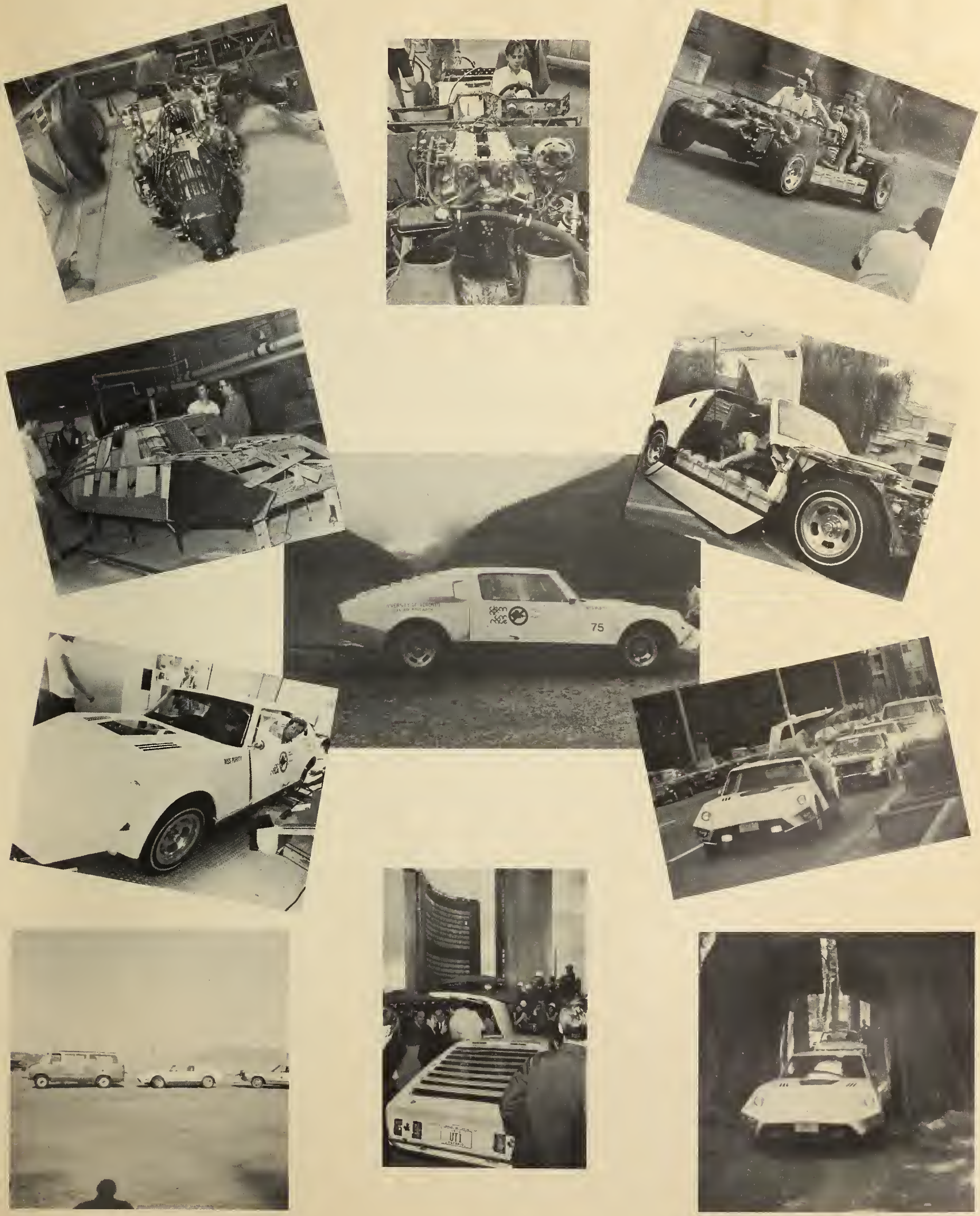
COMMENTS ON STATEMENTS:

A condensation of the Financial Statements of the Engineering Alumni Association is published above. The bare bone financial data, typically, gives scant information on the benefits derived from the expenditure of the funds. They don't, for instance, reflect our pride in the seven $1000.00 entrance scholarship winners. The Faculty is academically richer through the presence of Jan Piotr Blachut, Ottawa; Anthony Louis Corrado, Hamilton; Marvin Gold, Downsview; Victor George Mozarowski, Toronto; Ian Willard Sorenson, Mitchell; David Edward Udall, Arnprior; and John Thomas Tiedje, Sarnia.

Also under the Educational program, 33 bursaries were awarded to needy undergraduate students for whom no other source of income was available. These awards totalled $7000.00.

Aside from the publication of this "News", other worthwhile activities are undertaken by the Association. These include the sponsorship and organization of the Spring "T" year Reunions, and the Fall Reunions, the support of Undergraduate programs and the support of the Faculty for special projects of exceptional merit for which funds are otherwise unavailable. The Stewart Wilson award, last year won by F. Alan Brownridge, provides a room for an Engineering student in New College. The Association also undertook special projects which, because they were not anticipated at budget time, resulted in our net operating deficit. (This deficit will be made up in our 1970-71 operations.) One such project involved the support of students to work with Professors during the summer to assist in developing better and more relevant course material. Another special project provided funds for the painting by Evan MacDonald of the late Stewart Wilson which now overlooks Wilson Hall in New College. These and other programs are possible because of Alumni contributions to the Varsity Fund. Your past and present support is much appreciated.

MISS PURITY TRIUMPHS IN CLEAN AIR CAR RACE



The pictures above give some indication of the progress of "Miss Purity" from improbable dream to triumphant accomplishment. In co-winning its Hybrid class and placing in the announced "Top Five", the car represents a collaborative triumph of design and fabrication for the undergraduates, graduates and staff who contributed to her success.

Engineering Alumni News
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OF THE
UNIVERSITY OF TORONTO
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Secretary .... *P. B. Walters*
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Chairman — J. G. Cowan
ALUMNI HOUSE, UNIVERSITY OF TORONTO
TORONTO 5 - ONTARIO

FUNDAMENTAL VALUES UNCHANGED

In these days of social unrest among the young, it is reassuring, yea even comforting, to know certain fundamental values have not changed. I am pleased to report The Lady Godiva Memorial Band is just as bad as ever and the "Toike Oike" is just as irreverent (or more so).

These facts were drawn emphatically to my attention when I found myself on campus recently and happened into the Engineering Stores now located in the old Mill building. Aside from an abundance of hair, the place appears to have changed little in the ten years since I saw it last.

I picked up a copy of "Toike", read it from cover to cover, and could almost imagine myself sitting in a metallurgy lecture which unfortunately coincided with the publishing date of "Toike". The jokes are just as bad as they once were, (they may even be the same ones), the articles are as preposterous, and the editorials as blunt. The only real difference seems to be an increased emphasis on satirical sex, a reflection I suppose of the liberalization of the subject in all media.

I had barely digested this one morsel of nostalgia when I was regaled by another. From a record player the sweet/sour sound of the LGMB flooded into the room. On enquiry I learned our famous Lady Godiva Memorial Board had cut a record! Not only that, but, as I found on listening to it, a very enjoyable one. Selections include the Skule Song (with Cannon), Talking McGill Train Blues, Bungler's Holiday and the famous Holst Suite For Military Band in E Flat, (seriously), which won the band first prize at the Kiwanis Festival in 1967. I was pleased to learn that both of these items are available to Alumni. A subscription to the "Toike" costs $2.00 and the LGMB record $3.00. (There is probably room for negotiations if you feel so inclined.) Both are available by writing the Engineering Society, Room 105, Mill Building, U. of T.

ATHLONE FELLOWSHIPS END

The British Board of Trade, sponsors of the Athlone Fellowship Program have announced the termination of the awards as of the completion of the 1970 program. This program, well known to all Engineering students, provided graduates with post graduate training in England. The individual award normally included either two years at a University, two years in Industry or a year in each. Since 1951, some 763 Canadian Engineers have benefitted from the experience and knowledge provided through the Athlone scheme. Of these 110 have been graduate Engineers of the University of Toronto.

The program served many purposes. Among them were to give Canadian Engineers the advantage of obtaining some of their training in the technically advanced and industrially mature British environment, while at the same time giving them the opportunity to explore the British culture with a long range aim of improving Canadian-British trade relations. The Athlone program has been very successful in fulfilling these purposes and has constituted one of the most sought after and treasured awards available to Engineering graduates. It is thus with considerable sadness that we learn of the British Government's discontinuance of the program.

Several of the past Canadian Award winners are so convinced of its merit that they are exploring avenues of approach to keep the scheme going under some form. Jim Flett '61 Award winner is presently drawing ideas together and would be pleased to hear from interested parties.

AUDREY HOZACK,
ASSOCIATE DIRECTOR, ALUMNI AFFAIRS

AUDREY HOZACK

Audrey Hozack is a bundle of tireless, usually good-humoured, sometimes acid-tongued, enthusiastic energy that descended on the campus in 1947 and has had various offices in a whirl ever since. Right now she is Associate Director of Alumni Affairs, a position she has held since July 1st.

Audrey was born in Toronto 50 years ago, graduated from Rivedale Collegiate Institute, worked for an insurance company, became a war bride and then a war widow, rose through the ranks of the Avon (ding dong) organization to assistant manager, went back to business college to improve her typing and shorthand, and finally arrived on the campus in search of a job. From 1947 to 1952, she was secretary to E. A. Macdonald, Secretary-Treasurer of the SAC. She was Mrs. Dickie then. In March 1952 she married Jimmie Hozack, who is Business Manager of Hart House Theatre.

In February 1953 she became secretary to Carman Guild, who was then Graduate Secretary of Hart House (and now is Assistant Warden). From 1954 to 1966 she was in charge of the House's Graduate Office. In June 1966 she finally became an alumna of this University — the hard way, through night courses in the Division of University Extension. Her administrative ability was recognized in 1966 when she was appointed Assistant Director of Alumni Affairs under Joe Evans, and confirmed with her new title this year.

Her responsibilities at Alumni House are numerous and varied. Chief among them is editorship of the Class Notes that started appearing in *University of Toronto News* soon after her arrival, and which has responded to her enthusiastic fostering with almost embarrasing fecundity. She is also responsible for Branch News, class organizations in general and Alumni archives; assists with a number of functions of the University of Toronto Alumni Association, including its investment, loan and scholarship programs, reunions, homecoming, and student liaison; and collaborates with a number of alumni associations and branches — among them is the Bermuda Alumni Branch that she started last spring while officially on a vacation. Some people just can't stop working, even on the beach.

ENGINEERING FORUM

FACULTY OF APPLIED SCIENCE & ENGINEERING • UNIVERSITY OF TORONTO • SEPT. 1970 No. 4

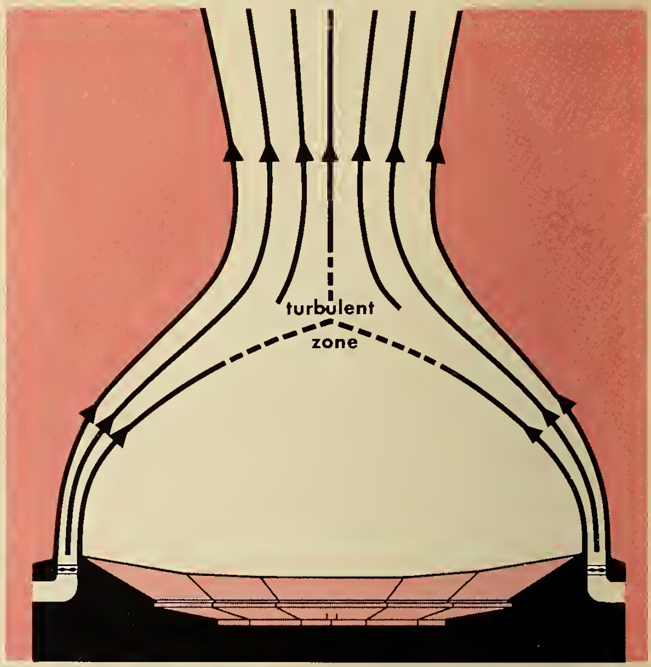
ARCHITECTURAL AERODYNAMICS

What caused the Tacoma Narrows bridge in the state of Washington and the giant cooling towers at Ferrybridge in England to collapse? Why is it so windy around the base of tall buildings? How should tall slender structures like the restaurant towers at Niagara Falls be designed to provide both adequate strength and acceptable sway in strong gusty winds? Can air be used as a structural material, replacing walls and roofs?

These and other related questions are being studied by staff and students at the University of Toronto in both the Institute for Aerospace Studies and the Department of Mechanical Engineering. Recent investigations at Aerospace Studies on the last question above are particularly intriguing. Vertical air curtain blowing downwards or sideways with air speeds of only a few miles per hour have been used for some time now as a replacement for normal screens, walls, and doors. A well-known example is to be found at Yorkdale Shopping Centre in Toronto — an air curtain entrance to a department store.

Recent theoretical and experimental work at the Institute has shown that air roofs as well as walls are a possibility — that rain and snow can be deflected by a horizontal air curtain (or 'jet sheet') about 1 ft. thick and blowing at about 60 mph, keeping the space beneath it dry. The cost in power (about 1/10 H.P. of jet energy per sq. ft. of dry space) and equipment needed is not fully known, and may not be too expensive to be practical.

It has also been shown that a ring of air directed upwards comes together at the top (see drawing), causing rain to fall outside the protected centre. Will we have stadia in the future with invisible roofs that can be turned on or off — made weaker or stronger — and perhaps controlled automatically by weather instruments? We don't know yet whether this application will be feasible either, but research on it and on other problems in this exciting new field is actively being pursued.



B. Etkin,
Chairman,
Division of Engineering
Science and Professor,
Institute for Aerospace Studies.

ENGINEERING FORUM

The Faculty has prepared a new series of bulletins for distribution to Secondary Schools in the Province. The intention of the bulletin is to improve liaison and communication and to inform potential Engineering students of some of the research activities currently direced by members of the Faculty. Professor John Hewitt has sent us a copy of a recent issue which we have reproduced above.

Hi! have a Merry Christmas and a Happy New Year
ENGINEERING ALUMNI NEWS
CHRISTMAS
1 9 7 0